10

15

20

25

30

CLAIMS

1. The use of a compound of the formula

or a pharmaceutically acceptable salt or solvate thereof, wherein

either (i) R^1 is H, C_1 - C_6 alkyl, C_3 - C_7 cycloalkyl, phenyl, benzyl, halo, -CN, -OR 7 , -OR 8 , -CO $_2$ R 5 , -CONR 5 R 5 , -OCONR 5 R 5 , -NR 5 CO $_2$ R 7 , -NR 5 COR 5 , -NR 5 COR 5 , -NR 5 COR 5 , -NR 5 CONR 5 R 5 , -NR 5 SO $_2$ R 7 or R 6 , said C_1 - C_6 alkyl, C_3 - C_7 cycloalkyl, phenyl and benzyl being optionally substituted by halo, -CN, -OR 5 , -OR 8 , -CO $_2$ R 7 , -NR 5 R 5 , -NR 5 R 5 , -NR 5 COR 5 , -NR 5 COR 6 , -NR 6 COR 6

 \Re^2 is H or -Y-Z,

or, (ii) R^1 and R^2 , when taken together, represent unbranched C_3 - C_4 alkylene, optionally wherein one methylene group of said C_3 - C_4 alkylene is replaced by an oxygen atom or a nitrogen atom, said nitrogen atom being optionally substituted by R^5 or R^8 ;

Y is a direct bond or C₁-C₃ alkylene;

Z is R^{10} or, where Y is C_1 - C_3 alkylene, Z is -NR⁵COR¹⁰, -NR⁵CONR⁵R¹⁰, -NR⁵CONR⁵COR¹⁰ or -NR⁵SO₂R¹⁰;

R³ is H, C₁-C₆ alkyl, C₃-C₇ cycloalkyl, phenyl, benzyl, -CN, halo, -OR⁷, -CO₂R⁵,

-CONR⁵R⁵, -OCONR⁵R⁵, -NR⁵CO₂R⁷, -NR⁵R⁵, -NR⁵COR⁵, -NR⁵CONR⁵R⁵,

 $-NR^5SO_2R^7 \ \, \text{or} \ \, R^6, \ \, \text{said} \ \, C_1-C_6 \ \, \text{alkyl}, \ \, C_3-C_7 \ \, \text{cycloalkyl}, \ \, \text{phenyl} \ \, \text{and} \ \, \text{being}$ optionally substituted by halo, -CN, -OR 5 , -CO $_2R^5$, -CONR $^5R^5$, -OCONR $^5R^5$,

-NR⁵CO₂R⁷, -NR⁵R⁵, -NR⁵COR⁵, -SO₂NR⁵R⁵, -NR⁵CONR⁵R⁵, -NR⁵SO₂R⁷ or R⁶;

 R^4 is phenyl or pyridyl, each being optionally substituted by R^6 , halo, -CN, C_1 - C_6 alkyl, fluoro- $(C_1$ - $C_6)$ -alkyl, C_3 - C_7 cycloalkyl or C_1 - C_6 alkoxy;

each R^5 is independently either H, C_1 - C_6 alkyl, C_3 - C_7 cycloalkyl, fluoro-(C_1 - C_6)-alkyl, phenyl or benzyl, or, when two such groups are attached to the same nitrogen atom, those two groups taken together with the nitrogen atom to which they are attached represent azetidinyl, pyrrolidinyl, piperidinyl, homopiperazinyl, homopiperazinyl or morpholinyl, said azetidinyl, pyrrolidinyl, piperidinyl, homopiperidinyl, piperazinyl, homopiperazinyl and morpholinyl being optionally substituted by C_1 - C_6 alkyl or C_3 - C_7 cycloalkyl and said piperazinyl and homopiperazinyl being optionally substituted on the nitrogen atom not taken together with the two R^5 groups to form the ring by - COR^7 or - SO_2R^7 ;

10

15

20

25

30

R⁶ is a four to six-membered, aromatic, partially unsaturated or saturated heterocyclic group containing (i) from 1 to 4 nitrogen heteroatom(s) or (ii) 1 or 2 nitrogen heteroatom(s) and 1 oxygen or 1 sulphur heteroatom or (iii) 1 or 2 oxygen or sulphur heteroatom(s), said heterocyclic group being optionally substituted by -OR⁵, -NR⁵R⁵, -CN, oxo, C₁-C₆ alkyl, C₃-C₇ cycloalkyl, -COR⁷ or halo;

R⁷ is C₁-C₆ alkyl, C₃-C₇ cycloalkyl, fluoro-(C₁-C₆)-alkyl, phenyl or benzyl;

R⁸ is C₁-C₆ alkyl substituted by phenyl, phenoxy, pyridyl or pyrimidinyl, said phenyl, phenoxy, pyridyl and pyrimidinyl being optionally substituted by halo,

-CN, -CONR 5 R 5 , -SO $_2$ NR 5 R 5 , -NR 5 SO $_2$ R 7 , -NR 5 R 5 , -(C $_1$ -C $_6$ alkylene)-NR 5 R 5 , C $_1$ -C $_6$ alkyl, fluoro-(C $_1$ -C $_6$)-alkyl, C $_3$ -C $_7$ cycloalkyl or C $_1$ -C $_6$ alkoxy;

 R^9 is H, C_1 - C_6 alkyl or C_3 - C_7 cycloalkyl, said C_1 - C_6 alkyl and C_3 - C_7 cycloalkyl being optionally substituted by -OR⁵, -NR⁵COR⁵, -CONR⁵R⁵ or R⁶;

 $R^{10} \text{ is } C_1\text{-}C_6 \text{ alkyl, } C_3\text{-}C_6 \text{ alkenyl, } C_3\text{-}C_6 \text{ alkynyl, } C_3\text{-}C_7 \text{ cycloalkyl, phenyl, benzyl or C-linked } R^6, \text{ said } C_1\text{-}C_6 \text{ alkyl, } C_3\text{-}C_7 \text{ cycloalkyl, phenyl and benzyl being optionally substituted by halo, } -OR^5, -OR^{12}, -CN, -CO_2R^7, -CONR^5R^5, -OCONR^5R^5, -C(=NR^5)NR^5OR^5, -CONR^5NR^5R^5, -OCONR^5CO_2R^7, -NR^5R^5, -NR^5COR^5, -NR^5CO_2R^7, -NR^5CONR^5R^5, -NR^5COCONR^5R^5, -NR^5COCONR^5R^5, -NR^5SO_2R^7, -SO_2NR^5R^5 \text{ or } R^6;$

X is $-CH_2$ -, $-CHR^{11}$ -, -CO-, -S-, -SO- or $-SO_2$ -; R^{11} is C_1 - C_6 alkyl, C_3 - C_7 cycloalkyl, fluoro- $(C_1$ - C_6)-alkyl or C_1 - C_6 alkoxy; and R^{12} is C_1 - C_6 alkyl substituted by R^6 , $-OR^5$, $-CONR^5R^5$, $-NR^5COR^5$ or $-NR^5R^5$; in the manufacture of a reverse transcriptase inhibitor or modulator.

- 2. The use of a compound of the formula (I), or a pharmaceutically acceptable salt or solvate thereof, as defined in claim 1, in the manufacture of a medicament for the treatment of a human immunodeficiency viral (HIV), or genetically related retroviral, infection or a resulting acquired immunodeficiency syndrome (AIDS).
- 3. The use of claim 1 or claim 2, wherein R^1 is C_1 - C_6 alkyl, $-OR^7$, $-CO_2R^5$, $-NR^5CO_2R^7$, $-NR^5R^5$, $-NR^5CO$ - $(C_1$ - C_6 alkylene)- OR^5 or R^6 , said C_1 - C_6 alkyl being optionally substituted by halo, -CN, $-OR^5$, $-OR^8$, $-CO_2R^5$, $-CONR^5R^5$, $-OCONR^5R^5$,

-NR 5 CO $_2$ R 7 , -NR 5 R 5 , -NR 8 R 9 , -NR 5 COR 5 , -NR 5 COR 6 , -NR 5 COR 5 R 5 , -NR 5 SO $_2$ R 7 or R 6 .

- 4. The use of claim 3 wherein R^1 is C_1 - C_6 alkyl, $-OR^7$, $-CO_2R^5$, $-NR^5CO_2R^7$, $-NR^5R^5$, $-NR^5CO$ - $(C_1$ - C_6 alkylene)- OR^5 or R^6 , said C_1 - C_6 alkyl being optionally substituted by halo or $-OR^5$.
- 5. The use of claim 4 wherein R¹ is C₁-C₃ alkyl, -OCH₃, -CO₂(C₁-C₂ alkyl),
 -NHCO₂(C₁-C₂ alkyl), -NH₂, -N(CH₃)₂, -NHCOCH₂OCH₃ or furanyl, said C₁-C₃ alkyl being optionally substituted by fluoro or -OH.

10

15

20

25

6. The use of claim 5 wherein R¹ is methyl, ethyl, prop-2-yl, hydroxymethyl, trifluoromethyl, -OCH₃, -CO₂CH₂CH₃, -NHCO₂CH₂CH₃, -NH₂, -N(CH₃)₂,

-NHCOCH₂OCH₃ or furan-2-yl.

- 7. The use of claim 6 wherein R¹ is ethyl.
- 8. The use of claim 1 or claim 2 wherein R¹ is methyl, ethyl, trifluoromethyl or -CH₂NHCH₂(4-cyanophenyl).
 - 9. The use of any one of the preceding claims wherein R^2 is H, C_1 - C_6 alkyl, -(C_1 - C_3 alkylene)-NR 5 CO-(C_1 - C_6 alkyl), -(C_1 - C_3 alkylene)-NR 5 CONR 5 -(C_1 - C_6 alkyl), -(C_1 - C_3 alkylene)-NR 5 SO₂(C-linked R^6), -(C_1 - C_3 alkylene)-NR 5 CO(C-linked R^6), -(C_1 - C_3 alkylene)-NR 5 CO-(phenyl), each C_1 - C_6 alkyl and phenyl being optionally substituted by halo, -OR 5 , -OR 12 , -CN, -CO₂R 7 , -CONR 5 R 5 , -OCONR 5 R 5 , -C(=NR 5)NR 5 OR 5 , -CONR 5 R 5 , -OCONR 5 R 5 , -NR 5 CO₂R 7 , -NR 5 CO₂R 7 , -NR 5 COR 5 , -NR 5 COCONR 5 R 5
- 10. The use of claim 9 wherein R^2 is H, C_1 - C_6 alkyl, -(C_1 - C_3 alkylene)-NR 5 CO-(C_1 - C_6 alkyl), -(C_1 - C_3 alkylene)-NR 5 CONR 5 -(C_1 - C_6 alkyl), -(C_1 - C_3 alkylene)-NR 5 CONR 5 CO-(phenyl), -(C_1 - C_3 alkylene)-NR 5 SO₂R 6 , -(C_1 - C_3 alkylene)-NR 5 CO-(phenyl), each C_1 - C_6 alkyl and phenyl being optionally substituted by halo, -OR 5 , -CN, -CO₂R 7 , -CONR 5 R 5 , -OCONR 5 R 5 , -OCONR 5 R 5 , -NR 5 COCONR 5 R 5 , or R 6 .
- 11. The use of claim 10 wherein R^2 is H, C_1 - C_3 alkyl, -(C_1 - C_2 alkylene)-NHCO-(C_1 - C_3 alkyl), -(C_1 - C_2 alkylene)-NHCONH-(C_1 - C_3 alkyl), -(C_1 - C_2 alkylene)-NHCONHCO-(phenyl), -(C_1 - C_2 alkylene)-NHSO $_2$ R 6 , -(C_1 - C_2 alkylene)-NHCOR 6 , -(C_1 - C_2 alkylene)-NHCO-(phenyl), each C_1 - C_3 alkyl and phenyl being optionally substituted by fluoro, -OH, -O(C_1 - C_6 alkyl), -CN, -CO $_2$ (C_1 - C_6 alkyl), -CONH $_2$, -OCONH $_2$, -OCONHCO $_2$ Ph, -NH $_2$, -N(C_1 - C_6 alkyl) $_2$, -NHCONH $_2$, -NHCOCONH $_2$ or R 6 .
- 12. The use of any one of claims 9 to 11 wherein R⁶ is 2,4-dihydroxypyrimidinyl, 1-methylimidazolyl, tetrahydrofuranyl, 1,5-dimethylpyrazolyl, tetrazolyl, pyridinyl, pyrimidinyl, 3-hydroxypyridazinyl, 2-hydroxypyridinyl, 2-oxo-2H-pyranyl or 1,2,3-thiadiazolyl.
- The use of claim 11 wherein R² is H, -CH₂OH, -CH₂CH₂OH, -CH₂CH₂CH₂OH, 30 -CH2OCONH2, -CH2CH2OCONH2, -CH2OCONHCO2Ph, -CH2CO2CH2CH3, -CH2CH2CO2CH3, -CH₂CH₂CO₂CH₂CH₃, -CH2CH2CONH2, -CH2CH2NH2, -CH2CH2CH2NH2, -CH₂CH₂NHCOCHF₂, -CH₂CH₂NHCOCH₂CN, -CH₂CH₂NHCOCH₂N(CH₃)₂, -CH₂CH₂NHCOCH₂OCH₃, -CH₂CH₂NHCOCH₂OH, -CH2CH2NHCOCH2OCH2CH3. -CH₂CH₂NHCOCH₂NHCONH₂, -CH₂CH₂NHCOCONH₂, -CH2CH2NHCONHCH2CH2CH3, 35 -CH₂CH₂NHCONHCOPh, -CH₂CH₂NHCONHCO(2,6-diffuorophenyl), -CH₂CH₂NHSO₂(2,4dihydroxypyrimidin-5-yl), -CH₂CH₂NHSO₂(1-methylimidazol-4-yl), -CH₂CH₂NHCO(tetrahydrofuran-2-yl), -CH₂CH₂NHCO(1,5-dimethylpyrazol-3-yl),

10

15

20

35

- $-CH_2CH_2NHCOCH_2(tetrazol-1-yI), \qquad -CH_2CH_2NHCOPh, \qquad -CH_2CH_2NHCO(pyridin-2-yI), \\ -CH_2CH_2NHCO(pyrimidin-2-yI), \qquad -CH_2CH_2NHCO(2-fluorophenyI), \qquad -CH_2CH_2NHCO(3-hydroxyphenyI), \qquad -CH_2CH_2NHCO(3-hydroxypyridazin-6-yI), \qquad -CH_2CH_2NHCO(2-hydroxypyridin-6-yI), -CH_2CH_2NHCO(2-oxo-2H-pyran-5-yI) or -CH_2CH_2NHCO(1,2,3-thiadiazol-4-yI).$
- 14. The use of any one of claims 1 to 8 wherein R² is H, methyl, -CH₂CH₂OH, -CH₂CH₂CH₂OH, -CH₂CH₂CH₂NH₂, -CH₂CH₂NH₂, -CH₂CH₂OCH₃, -CH₂CONH₂, -CH₂CH₂NHCOCH₂OCH₃ or azetidin-3-yl.
- 15. The use of claim 14 wherein R² is -CH₂CH₂OH, -CH₂CH₂NH₂, -CH₂CN or azetidin-3-yl.
- 16. The use of any one of the preceding claims wherein R^3 is C_1 - C_6 alkyl, $-CO_2R^5$, $-CONR^5R^5$, $-NR^5CO_2R^7$ or $-NR^5R^5$, said C_1 - C_6 alkyl being optionally substituted by halo, -CN, $-OR^5$, $-CO_2R^5$, $-CONR^5R^5$, $-OCONR^5R^5$, $-NR^5CO_2R^7$, $-NR^5CO_2R^7$, $-NR^5COR^5$, $-SO_2NR^5R^5$, $-NR^5CONR^5R^5$, $-NR^5SO_2R^7$ or R^6 .
- 17. The use of claim 16 wherein R^3 is C_1 - C_6 alkyl, $-CO_2R^5$, $-CONR^5R^5$, $-NR^5CO_2R^5$ or $-NR^5R^5$, said C_1 - C_6 alkyl being optionally substituted by halo, -CN or $-OR^5$.
- 18. The use of claim 17 wherein R³ is C₁-C₃ alkyl, -CO₂(C₁-C₂ alkyl), -CONH₂, -NHCO₂(C₁-C₄ alkyl), -N(CH₃)₂ or -NH₂, said C₁-C₃ alkyl being optionally substituted by halo, -CN or -OH.
- 19. The use of claim 18 wherein R³ is methyl, ethyl, prop-2-yl, hydroxymethyl, cyanomethyl, trifluoromethyl, -CO₂CH₂CH₃, -CONH₂, -NHCO₂C(CH₃)₃, -N(CH₃)₂ or -NH₂.
 - 20. The use of claim 19 wherein R³ is methyl, ethyl, prop-2-yl or trifluoromethyl.
 - 21. The use of claim 20 wherein R³ is ethyl.
- 22. The use of any one of the preceding claims wherein R^4 is phenyl optionally substituted by R^6 , halo, -CN, C_1 - C_6 alkyl, fluoro-(C_1 - C_6)-alkyl, C_3 - C_7 cycloalkyl or C_1 - C_6 alkoxy.
 - 23. The use of claim 22 wherein R^4 is phenyl substituted by halo, -CN or C_1 - C_3 alkyl.
 - 24. The use of claim 23 wherein R⁴ is phenyl substituted by fluoro, chloro, bromo, -CN, or methyl.
- 30 25. The use of claim 24 wherein R⁴ is 3-chlorophenyl, 4-chlorophenyl, 3-fluorophenyl, 3,5-dichlorophenyl, 2,6-difluorophenyl, 3,5-difluorophenyl, 3,5-dicyanophenyl or 3,5-dimethylphenyl.
 - 26. The use of claim 23 wherein R⁴ is (i) phenyl substituted at the 3 position by fluoro, chloro, methyl or cyano or (ii) phenyl substituted at the 3 and 5 positions by two substituents independently chosen from fluoro, chloro, methyl and cyano.
 - 27. The use of any one of the preceding claims wherein X is $-CH_2$ -, $-CHR^{11}$ -, -CO-, -S- or $-SO_2$ -.

10

15

20

25

30

- 28. The use of claim 27 wherein X is -CH₂-, -CH(OCH₃)-, -CO-, -S- or -SO₂-. 29. The use of claim 28 wherein X is -CH₂- or -S-. 30. The use of claim 1 or claim 2 wherein the compound of the formula (I) is selected from 2-[4-(3,5-dichlorobenzyl)-3,5-diethyl-1*H*-pyrazol-1-yl]ethanol; 2-[4-(3-chlorobenzyl)-3-isopropyl-5-methyl-1*H*-pyrazol-1-yl]ethanol; 2-[4-(3,5-difluorobenzyl)-3-isopropyl-5-methyl-1*H*-pyrazol-1-yl]ethanol; 2-[4-(3-fluorobenzyl)-3-isopropyl-5-methyl-1*H*-pyrazol-1-yl]ethanol; 2-[4-(3,5-dichlorobenzyl)-5-isopropyl-3-methyl-1*H*-pyrazol-1-yl]ethanol; ethyl [4-(3,5-dichlorobenzyl)-3,5-diethyl-1*H*-pyrazol-1-yl]acetate; ethyl [4-(3-fluorobenzyl)-3-isopropyl-5-methyl-1*H*-pyrazol-1-yl]acetate; N^{1} -{2-[4-(3,5-dichlorobenzyl)-3,5-diethyl-1*H*-pyrazol-1-yl]ethyl}ethanediamide; N-{2-[4-(3,5-dichlorobenzyl)-3,5-diethyl-1*H*-pyrazol-1-yl]ethyl}-6-oxo-1,6-dihydro-3pyridazinecarboxamide; $N-\{2-[4-(3,5-dichlorobenzyl)-3,5-diethyl-1H-pyrazol-1-yl]ethyl\}-1,5-dimethyl-1H-pyrazol-1-yl]ethyl\}-1,5-dimethyl-1H-pyrazol-1-yl]ethyl}-1,5-dimethyl-1H-pyrazol-1-yl]ethyl}-1,5-dimethyl-1H-pyrazol-1-yl]ethyl}-1,5-dimethyl-1H-pyrazol-1-yl]ethyl}-1,5-dimethyl-1H-pyrazol-1-yl]ethyl}-1,5-dimethyl-1H-pyrazol-1-yl]ethyl}-1,5-dimethyl-1H-pyrazol-1-yl]ethyl}-1,5-dimethyl-1H-pyrazol-1-yl]ethyl}-1,5-dimethyl-1H-pyrazol-1-yl]ethyl}-1,5-dimethyl-1H-pyrazol-1-yl]ethyl}-1,5-dimethyl-1H-pyrazol-1-yl]ethyl}-1,5-dimethyl-1H-pyrazol-1-yl]ethyl}-1,5-dimethyl-1H-pyrazol-1-yl]ethyl$ pyrazole-3-carboxamide; 2-[(aminocarbonyl)amino]-N-{2-[4-(3,5-dichlorobenzyl)-3,5-diethyl-1H-pyrazol-1yl]ethyl}acetamide; N-{2-[4-(3,5-dichlorobenzyl)-3,5-diethyl-1H-pyrazol-1-yl]ethyl}-2-ethoxyacetamide; N-{2-[4-(3,5-dichlorobenzyl)-3,5-diethyl-1*H*-pyrazol-1-yl]ethyl}-2-pyridinecarboxamide; $N-\{2-[4-(3,5-dichlorobenzy])-3,5-diethyl-1H-pyrazol-1-y]$ ethyl $\}-2-methoxyacetamide;$ $N-\{2-[4-(3,5-dichlorobenzy])-3,5-diethyl-1H-pyrazol-1-y]\}ethyl\}-6-oxo-1,6-dihydro-2$ pyridinecarboxamide; $N-\{2-[4-(3,5-dichlorobenzyl)-3,5-diethyl-1H-pyrazol-1-yl]ethyl\}-2$ pyrazinecarboxamide; N-{2-[4-(3,5-dichlorobenzyl)-3,5-diethyl-1H-pyrazol-1-yl]ethyl}-2-oxo-2H-pyran-5carboxamide; $N-\{2-[4-(3,5-dichlorobenzyl)-3,5-diethyl-1H-pyrazol-1-yl]ethyl\}-2-(1H-tetraazol-1-yl)$ yl)acetamide; N-{2-[4-(3,5-dichlorobenzyl)-3,5-diethyl-1H-pyrazol-1-yl]ethyl}tetrahydro-2-
- *N*-{2-[4-(3,5-dichlorobenzyl)-3,5-diethyl-1*H*-pyrazol-1-yl]ethyl}tetrahydro-2-furancarboxamide;

N-{2-[4-(3,5-dichlorobenzyl)-3,5-diethyl-1H-pyrazol-1-yl]ethyl}-1,2,3-thiadiazole-4-

35 carboxamide;

N-{2-[4-(3,5-dichlorobenzyl)-3,5-diethyl-1*H*-pyrazol-1-yl]ethyl}-2-(dimethylamino)acetamide;

	2-cyano-N-{2-[4-(3,5-dichlorobenzyl)-3,5-diethyl-1H-pyrazol-1-yl]ethyl}acetamide;
	N-{2-[4-(3,5-dichlorobenzyl)-3,5-diethyl-1H-pyrazol-1-yl]ethyl}-2-fluorobenzamide;
	N-{2-[4-(3,5-dichlorobenzyl)-3,5-diethyl-1 <i>H</i> -pyrazol-1-yl]ethyl}-N'-propylurea;
	N-benzoyl-N-{2-[4-(3,5-dichlorobenzyl)-3,5-diethyl-1H-pyrazol-1-yl]ethyl}urea;
5	2-[4-(3,5-dichlorobenzyl)-3-isopropyl-5-methyl-1H-pyrazol-1-yl]ethanol;
	ethyl [4-(3,5-dichlorobenzyl)-3-isopropyl-5-methyl-1 <i>H</i> -pyrazol-1-yl]acetate;
	ethyl [4-(3,5-dichlorobenzyl)-5-isopropyl-3-methyl-1 <i>H</i> -pyrazol-1-yl]acetate;
	4-(3,5-dichlorobenzyl)-3,5-diethyl-1 <i>H</i> -pyrazole;
	2-[4-(3,5-dichlorobenzyl)-3,5-dimethyl-1H-pyrazol-1-yl]ethanol;
10	2-[4-(3,5-dichlorobenzyl)-5-methyl-3-(trifluoromethyl)-1H-pyrazol-1-yl]ethanol;
	2-{4-[(4-chlorophenyl)sulfanyl]-3,5-dimethyl-1 <i>H</i> -pyrazol-1-yl}ethanol;
	ethyl [4-(3-chlorobenzyl)-3-isopropyl-5-methyl-1H-pyrazol-1-yl]acetate;
	ethyl [4-(3,5-difluorobenzyl)-3-isopropyl-5-methyl-1H-pyrazol-1-yl]acetate;
	4-(3,5-dichlorobenzyl)-3-isopropyl-5-methyl-1 <i>H</i> -pyrazole;
15	4-(3,5-difluorobenzyl)-3-isopropyl-5-methyl-1 <i>H</i> -pyrazole;
	4-(3-fluorobenzyl)-3-isopropyl-5-methyl-1 <i>H</i> -pyrazole;
	4-(3-chlorobenzyl)-3-isopropyl-5-methyl-1 <i>H</i> -pyrazole;
	2-{4-[(3,5-dichlorophenyl)sulfanyl]-3,5-dimethyl-1H-pyrazol-1-yl}ethanol;
	2-{4-[(3,5-dichlorophenyl)sulfonyl]-3,5-dimethyl-1H-pyrazol-1-yl}ethanol;
20	4-(3,5-dichlorobenzyl)-3,5-dimethyl-1 <i>H</i> -pyrazole;
	2-[4-(3,5-dichlorobenzyl)-3,5-dimethyl-1H-pyrazol-1-yl]ethanamine;
	2-[4-(3,5-dichlorobenzyl)-5-ethyl-3-(trifluoromethyl)-1H-pyrazol-1-yl]ethanol;
	2-[4-(3,5-dichlorobenzyl)-3-ethyl-5-(trifluoromethyl)-1H-pyrazol-1-yl]ethanol;
	2-[4-(3,5-dichlorobenzyl)-5-ethyl-3-methyl-1 <i>H</i> -pyrazol-1-yl]ethanol;
25	2-[4-(3,5-dichlorobenzyl)-3-ethyl-5-methyl-1 <i>H</i> -pyrazol-1-yl]ethanol;
	2-[4-(3,5-dichlorobenzyl)-3-(dimethylamino)-5-methyl-1H-pyrazol-1-yl]ethanol;
	2-[4-(3,5-dimethylbenzyl)-3,5-diethyl-1 <i>H</i> -pyrazol-1-yl]ethanol;
	2-[4-(3,5-dichlorobenzyl)-5-methoxy-3-methyl-1 <i>H</i> -pyrazol-1-yl]ethanol;
	2-[4-(3,5-dichlorobenzyl)-5-(2-furyl)-3-methyl-1 <i>H</i> -pyrazol-1-yl]ethanol;
30	(3,5-dichlorophenyl)[3,5-diethyl-1-(2-hydroxyethyl)-1 <i>H</i> -pyrazol-4-yl]methanone;
	(\pm) -2-{4-[(3,5-dichlorophenyl)(methoxy)methyl]-3,5-diethyl-1 H -pyrazol-1-yl}ethanol;
	2-[4-(2,6-difluorobenzyl)-3,5-diethyl-1 <i>H</i> -pyrazol-1-yl]ethanol;
	2-[4-(3,5-dichlorobenzyl)-3,5-diethyl-1 <i>H</i> -pyrazol-1-yl]ethyl carbamate;
	methyl 3-[4-(3,5-dichlorobenzyl)-3,5-diethyl-1 <i>H</i> -pyrazol-1-yl]propanoate;
35	ethyl 3-[4-(3,5-dichlorobenzyl)-3,5-diethyl-1 <i>H</i> -pyrazol-1-yl]propanoate;
	3-[4-(3,5-dichlorobenzyl)-3,5-diethyl-1 <i>H</i> -pyrazol-1-yl]propanamide;
	3-[4-(3,5-dichlorobenzyl)-3,5-diethyl-1 <i>H</i> -pyrazol-1-yl]-1-propanol;

```
[4-(3,5-dichlorobenzyl)-3,5-diethyl-1H-pyrazol-1-yl]methanol;
              [4-(3,5-dichlorobenzyl)-3,5-diethyl-1H-pyrazol-1-yl]methyl carbamate;
              2-[4-(3,5-dichlorobenzyl)-3,5-diethyl-1H-pyrazol-1-yl]ethanamine;
              N-{2-[4-(3,5-dichlorobenzyl)-3,5-diethyl-1H-pyrazol-1-yl]ethyl}benzamide;
 5
              N-{2-[4-(3,5-dichlorobenzyl)-3,5-diethyl-1H-pyrazol-1-yl]ethyl}-1-methyl-1H-imidazole-
      4-sulfonamide;
                           4-[(3,5-dichlorophenyl)sulfanyl]-5-ethyl-1-(2-hydroxyethyl)-1H-pyrazole-3-
              ethyl
      carboxylate;
                           4-[(3,5-dichlorophenyl)sulfanyl]-3-ethyl-1-(2-hydroxyethyl)-1H-pyrazole-5-
              ethyl
10
      carboxylate;
              4-[(3,5-dichlorophenyl)sulfanyl]-5-ethyl-1-(2-hydroxyethyl)-1H-pyrazole-3-
      carboxamide;
              2-[4-[(3,5-dichlorophenyl)sulfanyl]-5-ethyl-3-(hydroxymethyl)-1H-pyrazol-1-yl]ethanol;
              3-[4-(3,5-dichlorobenzyl)-3,5-diethyl-1H-pyrazol-1-yl]-1-propanamine;
15
              2-[4-[(3,5-dichlorophenyl)sulfanyl]-3-ethyl-5-(hydroxymethyl)-1H-pyrazol-1-yl]ethanol;
              N-\{2-[4-(3,5-dichlorobenzyl)-3,5-diethyl-1H-pyrazol-1-yl]ethyl\}-2,2-difluoroacetamide;
              [4-(3,5-dichlorobenzyl)-3,5-diethyl-1H-pyrazol-1-yl]methyl phenyl imidodicarbonate;
              N-\{2-[4-(3,5-dichlorobenzyl)-3,5-diethyl-1H-pyrazol-1-yl]ethyl\}-N'-(2,6-
      difluorobenzoyl)urea;
20
               N-{2-[4-(3,5-dichlorobenzyl)-3,5-diethyl-1H-pyrazol-1-yl]ethyl}-2,4-dioxo-1,2,3,4-
      tetrahydro-5-pyrimidinesulfonamide;
               ethyl 4-[(3,5-dichlorophenyl)sulfanyl]-5-ethyl-1H-pyrazole-3-carboxylate;
              [4-[(3,5-dichlorophenyl)sulfanyl]-5-ethyl-1-(2-hydroxyethyl)-1H-pyrazol-3-
      yl]acetonitrile;
25
              [4-[(3,5-dichlorophenyl)sulfonyl]-5-ethyl-1-(2-hydroxyethyl)-1H-pyrazol-3-
      yl]acetonitrile;
               2-{4-[(3,5-dichlorophenyl)sulfanyl]-3,5-diethyl-1H-pyrazol-1-yl}ethanol;
               4-(3,5-dichlorobenzyl)-3-ethyl-1H-pyrazol-5-amine;
               ethyl 4-(3,5-dichlorobenzyl)-3-ethyl-1-(2-hydroxyethyl)-1H-pyrazol-5-ylcarbamate;
30
               N-[4-(3,5-dichlorobenzyl)-3-ethyl-1-(2-hydroxyethyl)-1H-pyrazol-5-yl]-2-
      methoxyacetamide;
               2-[4-(3,5-dichlorobenzyl)-5-(dimethylamino)-3-ethyl-1H-pyrazol-1-yl]ethanol;
               ethyl 4-(3,5-dichlorobenzyl)-1-(2-hydroxyethyl)-5-methyl-1H-pyrazole-3-carboxylate;
               ethyl 4-(3,5-dichlorobenzyl)-1-(2-hydroxyethyl)-3-methyl-1H-pyrazole-5-carboxylate;
35
                                    4-(3,5-dichlorobenzyl)-1-(2-hydroxyethyl)-5-methyl-1H-pyrazol-3-
               tert-butyl
      ylcarbamate;
               2-[3-amino-4-(3,5-dichlorobenzyl)-5-methyl-1H-pyrazol-1-yl]ethanol;
```

10

15

20

25

ethyl [4-(3,5-dichlorobenzyl)-5-methoxy-3-methyl-1*H*-pyrazol-1-yl]acetate; 2-[5-amino-4-(3,5-dichlorobenzyl)-3-ethyl-1*H*-pyrazol-1-yl]ethanol; 5-{[3,5-diethyl-1-(2-hydroxyethyl)-1*H*-pyrazol-4-yl]methyl}isophthalonitrile; 5-[(3,5-diethyl-1*H*-pyrazol-4-yl)methyl]isophthalonitrile; 5-{[1-(2-aminoethyl)-3,5-diethyl-1*H*-pyrazol-4-yl]methyl}isophthalonitrile; 2-{4-[(3,5-dibromophenyl)sulfanyl]-3,5-diethyl-1*H*-pyrazol-1-yl}ethanol; and 5-{[3,5-diethyl-1-(2-hydroxyethyl)-1*H*-pyrazol-4-yl]sulfanyl}isophthalonitrile; and the pharmaceutically acceptable salts and solvates thereof.

31. The use of a compound of the formula

$$R^4$$
 R^1
 R^2
(Ia)

or a pharmaceutically acceptable salt or solvate thereof, wherein:

 $R^{1} \text{ is H, C}_{1}\text{-C}_{6} \text{ alkyl, C}_{3}\text{-C}_{7} \text{ cycloalkyl, phenyl, benzyl, halo, -OR}^{5}, \text{-CO}_{2}R^{5}, \text{-CONR}^{5}R^{6}, \text{-NR}^{5}CO_{2}R^{6}, \text{-NR}^{5}CO_{2}R^{6}, \text{-NR}^{5}COR^{6}, \text{-SO}_{2}NR^{5}R^{6}, \text{-NR}^{5}CONR^{6}R^{7}, \text{-NR}^{5}SO_{2}R^{6} \text{ or } R^{8}, \text{said C}_{1}\text{-C}_{6} \text{ alkyl, phenyl and benzyl being optionally substituted by halo, -OR}^{5}, \text{-CO}_{2}R^{5}, \text{-CONR}^{5}R^{6}, \text{-OCONR}^{5}R^{6}, \text{-NR}^{5}CO_{2}R^{6}, \text{-NR}^{5}COR^{6}, \text{-SO}_{2}NR^{5}R^{6}, \text{-NR}^{5}CONR^{6}R^{7}, \text{-NR}^{5}SO_{2}R^{6} \text{ or } R^{8};$

 R^2 is H, C₁-C₆ alkyl, C₃-C₇ cycloalkyl, phenyl, benzyl or C-linked R^{12} , said C₁-C₆ alkyl, phenyl and benzyl being optionally substituted by -OR⁹, -CO₂R⁹, -CO₂NR⁹R¹⁰, -NR⁹COR¹⁰, -NR⁹COR¹⁰, -NR⁹CONR¹⁰R¹¹, -SO₂NR⁹R¹⁰, -NR⁹SO₂R¹⁰ or R¹²,

 $R^{3} \text{ is } H, C_{1}\text{-}C_{6} \text{ alkyl}, C_{3}\text{-}C_{7} \text{ cycloalkyl}, \text{ phenyl}, \text{ benzyl}, \text{ halo, } \text{-}OR^{13}, \text{-}CO_{2}R^{13}, \text{-}CONR^{13}R^{14}, \text{-}OCONR^{13}R^{14}, \text{-}NR^{13}CO_{2}R^{14}, \text{-}NR^{13}R^{14}, \text{-}NR^{13}COR^{14}, \text{-}SO_{2}NR^{13}R^{14}, \text{-}NR^{13}CONR^{14}R^{15}, \text{-}NR^{13}SO_{2}R^{14} \text{ or } R^{16}, \text{ said } C_{1}\text{-}C_{6} \text{ alkyl}, \text{ phenyl and benzyl being optionally substituted by halo, } \text{-}OR^{13}, \text{-}CO_{2}R^{13}, \text{-}CONR^{13}R^{14}, \text{-}OCONR^{13}R^{14}, \text{-}NR^{13}CO_{2}R^{14}, \text{-}NR^{13}R^{14}, \text{-}NR^{13}CO_{2}R^{14}, \text{-}NR^{13}CO$

 R^4 is phenyl or pyridyl, each being optionally substituted by halo, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_3 - C_7 cycloalkyl or C_1 - C_6 alkoxy;

R⁵, R⁶, R⁷, R⁹, R¹⁰, R¹¹, R¹³, R¹⁴ and R¹⁵ are either each H, C₁-C₆ alkyl or C₃-C₆ cycloalkyl or, when two such groups are attached to the same nitrogen atom, those two groups taken together with the nitrogen atom to which they are attached may represent azetidinyl, pyrrolidinyl, piperidinyl, homopiperidinyl, piperazinyl, homopiperazinyl or

10

15

20

25

30

morpholinyl, said azetidinyl, pyrrolidinyl, piperidinyl, homopiperidinyl, piperazinyl, homopiperazinyl and morpholinyl being optionally substituted by C_1 - C_6 alkyl or C_3 - C_7 cycloalkyl;

 R^8 , R^{12} and R^{16} are each a five- or six-membered heterocyclic group containing 1 to 4 heteroatoms selected from O, N and S and optionally substituted by oxo, C_1 - C_6 alkyl, C_3 - C_7 cycloalkyl or halo; and

X is -CH₂-, -S-, -SO- or -SO₂-;

in the manufacture of a reverse transcriptase inhibitor.

- 32. The use of a compound of the formula (Ia), or a pharmaceutically acceptable salt or solvate thereof, as defined in claim 31, in the manufacture of a medicament for the treatment of a human immunodeficiency viral (HIV), or genetically related retroviral, infection or a resulting acquired immunodeficiency syndrome (AIDS).
- 33. A compound of the formula (I), as defined in any one of claims 1 or 3 to 30, or a compound of the formula (Ia), as defined in claim 31, or a pharmaceutically acceptable salt or solvate of either, for use as a reverse transcriptase inhibitor.
- 34. A compound of the formula (I), as defined in any one of claims 1 or 3 to 30, or a compound of the formula (Ia), as defined in claim 31, or a pharmaceutically acceptable salt or solvate of either, for use in the treatment of a human immunodeficiency viral (HIV), or genetically related retroviral, infection or a resulting acquired immunodeficiency syndrome (AIDS).
- 35. A method of treatment of a disorder treatable by the inhibition of reverse transcriptase, comprising the administration of an effective amount of a compound of the formula (I), as defined in any one of claims 1 or 3 to 30, or a compound of the formula (Ia), as defined in claim 31, or a pharmaceutically acceptable salt or solvate of either, to a patient in need of such treatment.
- 36. A method of treatment of a human immunodeficiency viral (HIV), or genetically related retroviral, infection or a resulting acquired immunodeficiency syndrome (AIDS) comprising the administration of an effective amount of a compound of the formula (I), as defined in any one of claims 1 or 3 to 30, or a compound of the formula (Ia), as defined in claim 31, or a pharmaceutically acceptable salt or solvate of either, to a patient in need of such treatment.
 - 37. A compound of the formula

or a pharmaceutically acceptable salt or solvate thereof, wherein

either (i) R^1 is H, C_1 - C_6 alkyl, C_3 - C_7 cycloalkyl, phenyl, benzyl, halo, -CN, -OR⁷, -CO₂R⁵, -CONR⁵R⁵, -OCONR⁵R⁵, -NR⁵CO₂R⁷, -NR⁵R⁵, -NR⁵COR⁵, -NR⁵CO-(C₁-C₆ alkylene)-OR⁵, -NR⁵CONR⁵R⁵, -NR⁵SO₂R⁷ or R⁶, said C₁-C₆ alkyl, C₃-C₇ cycloalkyl, phenyl and benzyl being optionally substituted by halo, -CN, -OR⁵, -OR⁸, -CO₂R⁵, -CONR⁵R⁵, -OCONR⁵R⁵, -NR⁵CO₂R⁷, -NR⁵R⁵, -NR⁸R⁹, -NR⁵COR⁵, -NR⁵COR⁶, -NR⁵COR⁸, -SO₂NR⁵R⁵, -NR⁵CONR⁵R⁵, -NR⁵CONR⁵R⁵, -NR⁵SO₂R⁷ or R⁶ and

R² is -Y-Z,

or, R^1 and R^2 , when taken together, represent unbranched C_3 - C_4 alkylene, optionally wherein one methylene group of said C_3 - C_4 alkylene is replaced by an oxygen atom or a nitrogen atom, said nitrogen atom being optionally substituted by R^5 or R^8 ,

and R^3 is H, C_1 - C_6 alkyl, C_3 - C_7 cycloalkyl, phenyl, benzyl, -CN, halo, -OR⁷, -CO₂R⁵, -CONR⁵R⁵, -OCONR⁵R⁵, -NR⁵CO₂R⁷, -NR⁵CO₂R⁷, -NR⁵COR⁵, -NR⁵CONR⁵R⁵, -NR⁵SO₂R⁷ or R⁶, said C_1 - C_6 alkyl, C_3 - C_7 cycloalkyl, phenyl and benzyl being optionally substituted by halo, -CN, -OR⁵, -CO₂R⁵, -CONR⁵R⁵, -OCONR⁵R⁵, -NR⁵CO₂R⁷, -NR⁵COR⁵, -NR⁵COR⁵, -SO₂NR⁵R⁵, -NR⁵COR⁵R⁵, -NR⁵SO₂R⁷ or R⁶,

or (ii) R^1 and R^3 are each independently C_1 - C_6 alkyl, C_3 - C_7 cycloalkyl or halo-(C_1 - C_6 alkyl), and R^2 is H,

provided that

- (a) for definition (i), R¹ and R³ are not both H,
- (b) for definition (i), R^1 and R^3 are not both optionally substituted phenyl, as defined therein,
 - (c) for definition (i), when R¹ and R³ are both methyl, R² is not phenyl or methyl,
- 25 and

30

35

5

10

15

20

(d) for definition (ii), R¹ and R³ are not both methyl;

Y is a direct bond or C₁-C₃ alkylene;

Z is R^{10} or, where Y is C_1 - C_3 alkylene, Z is -NR⁵COR¹⁰, -NR⁵CONR⁵R¹⁰, -NR⁵CONR⁵COR¹⁰ or -NR⁵SO₂R¹⁰;

 R^4 is phenyl or pyridyl, each substituted by at least one substituent selected from halo, -CN, C_1 - C_6 alkyl, fluoro-(C_1 - C_6)-alkyl, C_3 - C_7 cycloalkyl and C_1 - C_6 alkoxy;

each R^5 is independently either H, C_1 - C_6 alkyl, C_3 - C_7 cycloalkyl, fluoro-(C_1 - C_6)-alkyl, phenyl or benzyl, or, when two such groups are attached to the same nitrogen atom, those two groups taken together with the nitrogen atom to which they are attached represent azetidinyl, pyrrolidinyl, piperidinyl, homopiperidinyl, piperazinyl, homopiperazinyl or morpholinyl, said azetidinyl, pyrrolidinyl, piperidinyl, homopiperidinyl, piperazinyl, homopiperazinyl and morpholinyl being optionally substituted by C_1 - C_6 alkyl or C_3 - C_7

10

15

20

25

30

cycloalkyl and said piperazinyl and homopiperazinyl being optionally substituted on the nitrogen atom not taken together with the two R⁵ groups to form the ring by -COR⁷ or -SO₂R⁷;

R⁶ is a four to six-membered, aromatic, partially unsaturated or saturated heterocyclic group containing (i) from 1 to 4 nitrogen heteroatom(s) or (ii) 1 or 2 nitrogen heteroatom(s) and 1 oxygen or 1 sulphur heteroatom or (iii) 1 or 2 oxygen or sulphur heteroatom(s), said heterocyclic group being optionally substituted by -OR⁵, -NR⁵R⁵, -CN, oxo, C₁-C₆ alkyl, C₃-C₇ cycloalkyl, -COR⁷ or halo;

R⁷ is C₁-C₆ alkyl, C₃-C₇ cycloalkyl, fluoro-(C₁-C₆)-alkyl, phenyl or benzyl;

 R^{5} is C_{1} - C_{6} alkyl substituted by phenyl, pyridyl or pyrimidinyl, said phenyl, pyridyl and pyrimidinyl being optionally substituted by halo, -CN, -CONR 5 R 5 , -SO $_{2}$ NR 5 R 5 , -NR 5 SO $_{2}$ R 7 , -NR 5 R 5 , -(C $_{1}$ -C $_{6}$ alkylene)-NR 5 R 5 , C $_{1}$ -C $_{6}$ alkyl, fluoro-(C $_{1}$ -C $_{6}$)-alkyl, C $_{3}$ -C $_{7}$ cycloalkyl or C $_{1}$ -C $_{6}$ alkoxy;

R⁹ is H, C₁-C₆ alkyl or C₃-C₇ cycloalkyl, said C₁-C₆ alkyl and C₃-C₇ cycloalkyl being optionally substituted by -OR⁵, -NR⁵R⁵, -NR⁵COR⁵, -CONR⁵R⁵ or R⁶;

 $R^{10} \text{ is } \text{ (a) benzyl or C-linked } R^6, \text{ said benzyl being optionally substituted by halo, } -OR^5, -OR^{12}, -CN, -CO_2R^7, -CONR^5R^5, -OCONR^5R^5, -C(=NR^5)NR^5OR^5, -CONR^5NR^5R^5, -OCONR^5CO_2R^7, -NR^5CO_2R^7, -NR^5CO_2R^7, -NR^5CO_2R^7, -NR^5CONR^5R^5, -NR^5COCONR^5R^5, -NR^5SO_2R^7, -SO_2NR^5R^5 \text{ or } R^6, \text{ or (b) when } R^1 \text{ and } R^3 \text{ are each independently } C_1-C_6 \text{ alkyl, } C_3-C_7 \text{ cycloalkyl or halo-}(C_1-C_6 \text{ alkyl), } R^{10} \text{ is phenyl, } C_1-C_6 \text{ alkyl or } C_3-C_7 \text{ cycloalkyl each being optionally substituted by halo, } -OR^5, -OR^{12}, -CN, -CO_2R^7, -CONR^5R^5, -OCONR^5R^5, -C(=NR^5)NR^5OR^5, -CONR^5NR^5R^5, -OCONR^5CO_2R^7, -NR^5CO_2R^7, -NR^5CO_2R^7, -NR^5COCONR^5R^5, -NR^5SO_2R^7, -SO_2NR^5R^5 \text{ or } R^6;$

X is -CH₂-, -CHR¹¹-, -CO-, -S-, -SO- or -SO₂-;

 R^{11} is C_1 - C_6 alkyl, C_3 - C_7 cycloalkyl, fluoro-(C_1 - C_6)-alkyl or C_1 - C_6 alkoxy; and R^{12} is C_1 - C_6 alkyl substituted by R^6 , -OR 5 , -CONR 5 R 5 , -NR 5 COR 5 or -NR 5 R 5 .

- 38. A compound as claimed in claim 37 wherein R¹ is C₁-C₆ alkyl, -OR⁷, -CO₂R⁵, -NR⁵CO₂R⁷, -NR⁵R⁵, -NR⁵CO-(C₁-C₆ alkylene)-OR⁵ or R⁶, said C₁-C₆ alkyl being optionally substituted by halo, -CN, -OR⁵, -OR⁸, -CO₂R⁵, -CONR⁵R⁵, -OCONR⁵R⁵, -NR⁵CO₂R⁷, -NR⁵R⁵, -NR⁵COR⁵, -NR⁵COR⁶, -NR⁵COR⁸, -SO₂NR⁵R⁵, -NR⁵CONR⁵R⁵, -NR⁵SO₂R⁷ or R⁶.
- 39. A compound as claimed in claim 38 wherein R^1 is C_1 - C_6 alkyl, $-OR^7$, $-CO_2R^5$, $-NR^5CO_2R^7$, $-NR^5R^5$, $-NR^5CO_1C_1$ - C_6 alkylene)- OR^5 or R^6 , said C_1 - C_6 alkyl being optionally substituted by halo or $-OR^5$.
 - 40. A compound as claimed in claim 39 wherein R¹ is C₁-C₃ alkyl, -OCH₃,

35 -CO₂(C₁-C₂ alkyl), -NHCO₂(C₁-C₂ alkyl), -NH₂, -N(CH₃)₂, -NHCOCH₂OCH₃ or furanyl, said C₁-C₃ alkyl being optionally substituted by fluoro or -OH.

10

15

20

25

30

35

- 41. A compound as claimed in claim 40 wherein R^1 is methyl, ethyl, prop-2-yl, hydroxymethyl, trifluoromethyl, -OCH₃, -CO₂CH₂CH₃, -NHCO₂CH₂CH₃, -NH₂, -N(CH₃)₂, -NHCOCH₂OCH₃ or furan-2-yl.
 - 42. A compound as claimed in claim 41 wherein R¹ is ethyl.
- 43. A compound as claimed in claim 37 wherein R^1 is methyl, ethyl, trifluoromethyl or $-CH_2NHCH_2(4$ -cyanophenyl).
- 44. A compound as claimed in any one of claims 37 to 43 wherein R^2 is H, C_1 - C_6 alkyl, $-(C_1$ - C_3 alkylene)-NR 5 CO- $(C_1$ - C_6 alkyl), $-(C_1$ - C_3 alkylene)-NR 5 CONR 5 - $(C_1$ - C_6 alkyl), $-(C_1$ - C_3 alkylene)-NR 5 SO $_2$ (C-linked R^6), $-(C_1$ - C_3 alkylene)-NR 5 CO(C-linked R^6), $-(C_1$ - C_3 alkylene)-NR 5 CO-(phenyl), each C_1 - C_6 alkyl and phenyl being optionally substituted by halo, $-OR^5$, $-OR^{12}$, -CN, $-CO_2R^7$, $-CONR^5R^5$, $-OCONR^5R^5$, $-C(=NR^5)NR^5OR^5$, $-CONR^5NR^5R^5$, $-OCONR^5CO_2R^7$, $-NR^5CO_2R^7$, -
- 45. A compound as claimed in claim 44 wherein R^2 is H, C_1 - C_6 alkyl, -(C_1 - C_3 alkylene)-NR 5 CO-(C_1 - C_6 alkyl), -(C_1 - C_3 alkylene)-NR 5 CONR 5 -(C_1 - C_6 alkyl), -(C_1 - C_3 alkylene)-NR 5 CONR 5 CO-(phenyl), -(C_1 - C_3 alkylene)-NR 5 SO $_2$ R 6 , -(C_1 - C_3 alkylene)-NR 5 CO-(phenyl), each C_1 - C_6 alkyl and phenyl being optionally substituted by halo, -OR 5 , -CN, -CO $_2$ R 7 , -CONR 5 R 5 , -OCONR 5 R 5 ,

 $-\mathsf{OCONR}^5\mathsf{CO}_2\mathsf{R}^7,\,-\mathsf{NR}^5\mathsf{R}^5,\,-\mathsf{NR}^5\mathsf{CONR}^5\mathsf{R}^5,\,-\mathsf{NR}^5\mathsf{COCONR}^5\mathsf{R}^5\ \ \text{or}\ \ \mathsf{R}^6.$

- 46. A compound as claimed in claim 45 wherein R^2 is H, C_1 - C_3 alkyl, -(C_1 - C_2 alkylene)-NHCO-(C_1 - C_3 alkyl), -(C_1 - C_2 alkylene)-NHCONH-(C_1 - C_3 alkyl), -(C_1 - C_2 alkylene)-NHCONHCO-(phenyl), -(C_1 - C_2 alkylene)-NHSO $_2$ R 6 , -(C_1 - C_2 alkylene)-NHCO-(phenyl), each C_1 - C_3 alkyl and phenyl being optionally substituted by fluoro, -OH, -O(C_1 - C_6 alkyl), -CN, -CO $_2$ (C_1 - C_6 alkyl), -CONH $_2$, -OCONH $_2$, -OCONHCO $_2$ Ph, -NH $_2$, -N(C_1 - C_6 alkyl) $_2$, -NHCONH $_2$, -NHCOCONH $_2$ or R 6 .
- 47. A compound as claimed in any one of claims 44 to 46 wherein R^6 is 2,4-dihydroxypyrimidinyl, 1-methylimidazolyl, tetrahydrofuranyl, 1,5-dimethylpyrazolyl, tetrazolyl, pyridinyl, pyrimidinyl, 3-hydroxypyridazinyl, 2-hydroxypyridinyl, 2-oxo-2H-pyranyl or 1,2,3-thiadiazolyl.
- A compound as claimed in claim 46 wherein R² is H, -CH₂OH, -CH₂CH₂OH, 48. -CH₂CH₂CH₂OH, -CH₂OCONH₂, -CH₂CCONH₂, -CH₂CCONHCO₂Ph, -CH₂CO₂CH₂CH₃, -CH₂CH₂CO₂CH₃, -CH₂CH₂CO₂CH₂CH₃, -CH₂CH₂CONH₂, -CH₂CH₂NH₂, -CH₂CH₂CH₂NH₂, -CH₂CH₂NHCOCH₂CN, -CH₂CH₂NHCOCH₂N(CH₃)₂, -CH2CH2NHCOCHF2, -CH2CH2NHCOCH2OCH3, -CH₂CH₂NHCOCH₂OH, -CH₂CH₂NHCOCH₂OCH₂CH₃, -CH₂CH₂NHCOCH₂NHCONH₂, -CH₂CH₂NHCOCONH₂, -CH₂CH₂NHCONHCH₂CH₂CH₃, -CH₂CH₂NHCONHCOPh, -CH₂CH₂NHCONHCO(2,6-difluorophenyl), -CH₂CH₂NHSO₂(2,4--CH₂CH₂NHSO₂(1-methylimidazol-4-yl), dihydroxypyrimidin-5-yl),

15

20

30

- $-\mathsf{CH}_2\mathsf{CH}_2\mathsf{NHCO}(\mathsf{tetrahydrofuran-2-yl}), \qquad -\mathsf{CH}_2\mathsf{CH}_2\mathsf{NHCO}(\mathsf{1,5-dimethylpyrazol-3-yl}), \\ -\mathsf{CH}_2\mathsf{CH}_2\mathsf{NHCOCH}_2(\mathsf{tetrazol-1-yl}), \qquad -\mathsf{CH}_2\mathsf{CH}_2\mathsf{NHCOPh}, \qquad -\mathsf{CH}_2\mathsf{CH}_2\mathsf{NHCO}(\mathsf{pyridin-2-yl}), \\ -\mathsf{CH}_2\mathsf{CH}_2\mathsf{NHCO}(\mathsf{pyrimidin-2-yl}), \qquad -\mathsf{CH}_2\mathsf{CH}_2\mathsf{NHCO}(\mathsf{2-fluorophenyl}), \qquad -\mathsf{CH}_2\mathsf{CH}_2\mathsf{NHCO}(\mathsf{3-hydroxypyridazin-6-yl}), \qquad -\mathsf{CH}_2\mathsf{CH}_2\mathsf{NHCO}(\mathsf{2-hydroxypyridin-6-yl}), \qquad -\mathsf{CH}_2\mathsf{C$
- 49. A compound as claimed in claim 37 wherein R^2 is H, methyl, -CH₂CH₂OH, -CH₂CH₂OH, -CH₂CH₂OH₂, -CH₂CH₂NH₂, -CH₂CH₂NH₂, -CH₂CH₂OCH₃, -CH₂CONH₂, -CH₂CH₂NHCOCH₂OCH₃ or azetidin-3-yl.
- 50. A compound as claimed in claim 49 wherein R^2 is $-CH_2CH_2OH$, $-CH_2CH_2NH_2$, 10 $-CH_2CN$ or azetidin-3-yl.
 - 51. A compound as claimed in any one of claims 37 to 50 wherein R^3 is C_1 - C_6 alkyl, $-CO_2R^5$, $-CONR^5R^5$, $-NR^5CO_2R^7$ or $-NR^5R^5$, said C_1 - C_6 alkyl being optionally substituted by halo, -CN, $-OR^5$, $-CO_2R^5$, $-CONR^5R^5$, $-OCONR^5R^5$, $-NR^5CO_2R^7$, -N
 - 52. A compound as claimed in claim 51 wherein R³ is C₁-C₆ alkyl, -CO₂R⁵, -CONR⁵R⁵, -NR⁵CO₂R⁷ or -NR⁵R⁵, said C₁-C₆ alkyl being optionally substituted by halo, -CN or -OR⁵.
 - 53. A compound as claimed in claim 52 wherein R^3 is C_1 - C_3 alkyl, $-CO_2(C_1$ - C_2 alkyl), $-CONH_2$, $-NHCO_2(C_1$ - C_4 alkyl), $-N(CH_3)_2$ or $-NH_2$, said C_1 - C_3 alkyl being optionally substituted by halo, -CN or -OH.
 - 54. A compound as claimed in claim 53 wherein R^3 is methyl, ethyl, prop-2-yl, hydroxymethyl, cyanomethyl, trifluoromethyl, $-CO_2CH_2CH_3$, $-CONH_2$, $-NHCO_2C(CH_3)_3$, $-N(CH_3)_2$ or $-NH_2$.
- 55. A compound as claimed in claim 54 wherein \mathbb{R}^3 is methyl, ethyl, prop-2-yl or trifluoromethyl.
 - 56. A compound as claimed in claim 55 wherein R³ is ethyl.
 - 57. A compound as claimed in any one of claims 37 to 56 wherein R^4 is phenyl substituted by at least one substituent selected from halo, -CN, C_1 - C_6 alkyl, fluoro-(C_1 - C_6)-alkyl, C_3 - C_7 cycloalkyl and C_1 - C_6 alkoxy.
 - 58. A compound as claimed in claim 57 wherein R^4 is phenyl substituted by at lease one substituent selected from halo, -CN and C_1 - C_3 alkyl.
 - 59. A compound as claimed in claim 58 wherein R^4 is phenyl substituted by at least one substituent selected from fluoro, chloro, bromo, -CN and methyl.
- 60. A compound as claimed in claim 59 wherein R⁴ is 3-chlorophenyl, 4-35 chlorophenyl, 3-fluorophenyl, 3,5-dichlorophenyl, 2,6-difluorophenyl, 3,5-difluorophenyl, 3,5-dicyanophenyl or 3,5-dimethylphenyl.

Brear - an annual College College College and College and College and College College

- 61. A compound as claimed in claim 58 wherein R^4 is (i) phenyl substituted at the 3 position by fluoro, chloro, methyl or cyano or (ii) phenyl substituted at the 3 and 5 positions by two substituents independently chosen from fluoro, chloro, methyl and cyano.
- 62. A compound as claimed in any one of claims 37 to 61 wherein X is $-CH_{2}$ -, 5 $-CHR^{11}$ -, -CO-, -S- or $-SO_{2}$ -.
 - 63. A compound as claimed in claim 62 wherein X is -CH $_2$ -, -CH(OCH $_3$)-, -CO-, -S- or -SO $_2$ -.
 - 64. A compound as claimed in claim 63 wherein X is -CH₂- or -S-.
 - 65. A compound as defined in claim 30.
- 10 66. A pharmaceutical composition including a compound of the formula (lb) or a pharmaceutically acceptable salt or solvate thereof, as defined in any one of claims 37 to 65, together with a pharmaceutically acceptable excipient, diluent or carrier.
 - 67. A compound of the formula (lb) or a pharmaceutically acceptable salt, solvate or composition thereof, as defined in any one of claims 37 to 65 and 66, respectively, for use as a medicament.
 - 68. A process for the preparation of a compound of the formula (lb), as defined in claim 37, wherein R^1 and R^3 are each either H, C_1 - C_6 alkyl, C_3 - C_7 cycloalkyl, phenyl, benzyl, NH_2 , $-CO_2R^5$, $-CONR^5R^5$, or C-linked R^6 , optionally substituted where allowed, which includes the reaction of
- 20 (a) a compound of the formula

$$R^4$$
 R^1
 O
 (II)

wherein R¹, R³ and R⁴ are as defined in claim 37, or a functional equivalent thereof, particularly a compound of the formula

$$R^3$$
 R^1 R^1 R^2 R^3 R^4 R^1 R^2 R^3 R^4 R^4

wherein R¹, R³, R⁴ and X are as defined in claim 37 and L¹ is a suitable leaving group, preferably dimethylamino, or a compound of the formula

wherein R^1 , R^3 , R^4 and X are as defined in claim 37 and L^2 is a suitable leaving group, preferably dimethylamino; or

(b) a compound of the formula

$$R^4$$
 CN
 CN
 (XXX)

wherein R³, R⁴ and X are as defined in claim 37; or

(c) a compound of the formula

(XXXII)

wherein $\ensuremath{\text{R}}^1$, $\ensuremath{\text{R}}^4$ and X are as defined in claim 37;

with a compound of the formula

wherein R² is as defined in claim 37, or a salt or solvate thereof, optionally followed by the conversion of the compound of the formula (lb) to a pharmaceutically acceptable salt thereof.

69. A process for the preparation of a compound of the formula (lb), as defined in claim 37, wherein R^1 or R^3 is $-OR^7$, or a pharmaceutically acceptable salt or solvate thereof, which includes the reaction of a compound of the formula

$$R^3$$
 N
 N
 R^2
 $(XVII)$

5

10

15

COLL STREET

1997年中國國際自身1996年末1975日中共2001 and war

10

15

20

wherein R^1 , R^3 , R^4 and X are as defined in claim 37 and L^4 is a suitable leaving group, preferably trifluoromethanesulphonate; or a compound of the formula

$$R^4$$
 R^1
 (XXI)
 N
 R^2

wherein R^1 , R^3 , R^4 and X are as defined in claim 37 and L^4 is a suitable leaving group, preferably trifluoromethanesulphonate;

with a compound of the formula

wherein R⁷ is as defined in claim 37, in the presence of a suitable catalyst, preferably a suitable palladium catalyst, optionally followed by the conversion of the compound of the formula (lb) to a pharmaceutically acceptable salt thereof.

70. A process for the preparation of a compound of the formula (lb), as defined in claim 37, wherein R¹ or R³ is -OR⁷, or a pharmaceutically acceptable salt or solvate thereof, which includes the reaction of a compound of the formula

$$R^4$$
OH
(XVIII)
 R^3
 N
 R^2

wherein R², R³, R⁴ and X are as defined in claim 37, or a compound of the formula

$$R^4$$
 R^1
 $(XXII)$
 $N R^2$

wherein R^1 , R^2 , R^4 and X are as defined in claim 37, with a compound of the formula $R^7 OH (XXV)$

wherein R⁷ is as defined in claim 37, under dehydrating conditions, preferably in the presence of a dialkylazodicarboxylate such as diethylazodicarboxylate, and a triarylphosphine such as triphenylphosphine, optionally followed by the conversion of the compound of the formula (Ib) to a pharmaceutically acceptable salt thereof.

71. A process for the preparation of a compound of the formula (lb), as defined in claim 37, wherein R¹ or R³ is -OR⁷, or a pharmaceutically acceptable salt or solvate thereof,

10

15

20

25

30

which includes the reaction of a compound of the formula (XVIII), as defined in claim 70, or a compound of the formula (XXII), as defined in claim 70, with a compound of the formula

$$R^7L^7$$
 (XXIX)

wherein R⁷ is as defined in claim 37 and L⁷ is a suitable leaving group, preferably halo, optionally followed by the conversion of the compound of the formula (Ib) to a pharmaceutically acceptable salt thereof.

72. A process for the preparation of a compound of the formula (lb), as defined in claim 37, wherein R¹ or R³ is -OCONR⁵R⁵, or a pharmaceutically acceptable salt or solvate thereof, which includes the reaction of a compound of the formula (XVIII), as defined in claim 70, or a compound of the formula (XXII), as defined in claim 70, with a compound of the formula

R⁵R⁵NCOL⁵ (XXVI)

in which R^5 is as defined in claim 37 and L^5 is a suitable leaving group, preferably chloro, or with a compound of the formula

in which R⁵ is as defined in claim 37, optionally followed by the conversion of the compound of the formula (Ib) to a pharmaceutically acceptable salt thereof.

- 73. A process for the preparation of a compound of the formula (lb), as defined in claim 37, wherein X is -CO- or -CHR 10 and R 10 is C₁-C₆ alkoxy, or a pharmaceutically acceptable salt or solvate thereof, which includes
 - (a) the oxidation of a compound of the formula

$$R^3$$
 R^4
 R^1
 R^3
 R^3

(XXXIV)

wherein R¹, R², R³ and R⁴ are as defined in claim 37, or

(b) the reaction of a compound of the formula (XXXIV), as defined above, with a compound of the formula

wherein R^b is C_1 - C_6 alkyl and L^8 is a suitable leaving group, preferably chloro, bromo or iodo, optionally followed by the conversion of the compound of the formula (Ib) to a pharmaceutically acceptable salt thereof.

- 74. A process for the preparation of a compound of the formula (lb), as defined in claim 37, containing an -OH, -NH- or -NH₂ group or a pharmaceutically acceptable salt or solvate thereof, which includes the deprotection of a corresponding compound bearing an -OP¹, -NP¹- or -NHP¹ group, respectively, wherein the group P¹ is a suitable protecting group, optionally followed by the conversion of the compound of the formula (lb) to a pharmaceutically acceptable salt thereof.
- 75. A compound as defined in claim 65, selected from

 2-{4-[(3,5-dichlorophenyl)sulfanyl]-3,5-dimethyl-1*H*-pyrazol-1-yl}ethanol;

 2-[4-[(3,5-dichlorophenyl)sulfanyl]-3-ethyl-5-(hydroxymethyl)-1*H*-pyrazol-1-yl]ethanol;

 10 and

 $2-\{4-[(3,5-dichlorophenyl)sulfanyl]-3,5-diethyl-1 \textit{H-pyrazol-1-yl}\} ethanol.$